

Arrangement and method for supplying electrical power
to a field device in a process installation without the
use of wires

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Abstract

An arrangement is described for supplying electrical power to a field device (10) with a housing (11) for monitoring a technical process in a process
10 installation, without the use of wires, which field device (10) has a wire-free communication interface (5). The field device (10) has at least one field device face (11a) facing the process and at least one field device face (11b, c, d) facing away from the
15 process, and is equipped with a thermoelectric transducer (14) which has a transducer face (14b) facing the process and a transducer face (14c) facing away from the process. The heat flow in the field device between the field device face (11a) facing the
20 process and the field device face (11b, c, d) facing away from the process is converted into electrical energy by the thermoelectric transducer (14), and this conversion process may be bidirectional.

25 Significant figure: Figure 1